#### CHAPTER 4

# TRAINING APPARATUSES

The apparatuses described in this chapter are used in basic airborne training. They allow the student to demonstrate proficiency in the tasks necessary to complete the course.

# Section I PARACHUTE LANDING FALL DEVICES

The three types of PLF training devices are the *2-foot high platform, the lateral drift apparatus*, and the *swing landing trainer*. The 2-foot high platform may be portable or permanently fixed. A soft landing area of sawdust or like material is used with all of the training apparatuses. These devices are used to teach front, side (right and left), and rear PLFs. They are high enough to simulate the shock the student will feel when he contacts the ground during parachute jumps. Initial instruction for each PLF is given without using the apparatuses. Once students are familiar with the techniques, they progress to the 2-foot high platform, the lateral drift apparatus, and the swing landing trainer. The swing landing trainer provides a means for gaining forward momentum and simulating the lateral movement experienced during a parachute landing.

# 4-1. INSTRUCTOR CRITIQUES

Instructor PLF critiques should be brief and clear, and emphasize the following points to students (Figure 4-1, page 4-2).

- a. Move the body to form an arc as the PLF continues. Start the PLF when the balls of the feet touch the ground. Do not hesitate on the balls of the feet.
- b. Complete the PLF by falling in the direction of drift, and lay the (body) points of contact on the ground.
  - c. Keep the chin on the chest and keep the neck tense throughout the PLF.
- d. Use a twisting-bending motion, beginning in the hips, to push the knees around, exposing the calf and thigh (right or left) as the legs give with the impact.

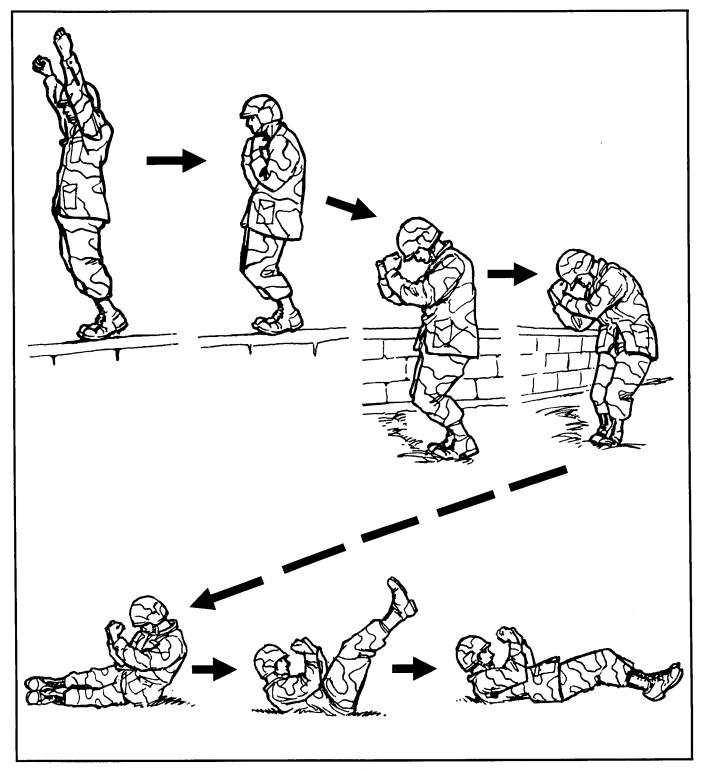


Figure 4-1. PLF sequence.

e. Table 4-1 lists common PLF errors, their causes, and ways to correct them.

ERROR	CAUSE	CORRECTION
FEET APART.	ANTICIPATION OF LANDING.	MODERATE TENSION IN THE LEGS. PRESS THE LEGS TOGETHER.
DRAWING THE LEGS UP BENEATH THE BUTTOCKS.	ANTICIPATION OF LANDING.	MODERATE TENSION IN THE LEGS. POINT THE BALLS OF FEET TOWARD THE GROUND. ASSUME PROPER LANDING ATTITUDE.
MISSING CONTACT WITH CALF AND THIGH.	HESITATION ON BALLS OF FEET. STRAIGHTENING LEGS AFTER ABSORBING IMPACT. FAILURE TO TWIST AND BEND SHARPLY WHEN BALLS OF FEET CONTACT THE GROUND.	DO NOT HESITATE. CONTINUE TO FALL. DO NOT STRAIGHTEN THE LEGS AFTER ABSORBING LANDING IMPACT. BEND AND TWIST THE TORSO VIGOROUSLY UPON CONTACT. THIS MOTION PUSHES THE KNEES AROUND AND FORCES THE CALF AND THIGH TO THE GROUND.
KNEES INTO THE GROUND.	HESITATION UPON LANDING. BENDING FORWARD. KNEES RELAXED EXCESSIVELY. NORMALLY OCCURS ON FRONT PLF.	DO NOT HESITATE UPON LANDING. CONTINUE TO FALL. APPLY THE TWISTING MOTION VIGOROUSLY. KEEP THE LEGS MODERATELY TENSE.
ELBOWS HIT THE GROUND.	LEANING FORWARD. FAILURE TO TWIST TORSO. BREAKING FALL WITH ELBOWS.	TWIST AND BEND THE TORSO UPON CONTACT. PULL THE ELBOWS UP IN FRONT OF THE CHEST.
HEAD STRIKES THE GROUND.	RELAXING THE NECK OR RAISING THE HEAD. MISSING POINTS OF CONTACT.	KEEP THE HEAD LOWERED ON THE CHEST AND MAINTAIN NECK TENSION THROUGHOUT THE PLF. TWIST AND BEND VIGOROUSLY AS THE PLF CONTINUES.

Table 4-1. Common PLF errors.

# 4-2. TWO-FOOT HIGH PLATFORM

Each platform is divided into dismount points. One instructor controls each point.

- a. On the command READY, the student assumes a descending attitude (arms up as if grasping the risers for a two-riser slip [T-10] or the prepare-to-land attitude [MC1-1], knees bent, head and eyes on the horizon).
- b. On the command SLIP (TURN for MC1-1B/C), the student assumes a correct landing attitude.

- c. On the command LAND, the student jumps straight away from the platform, executes the PLF, and makes a quick recovery. (The quick recovery is used only to expedite training and is not the primary method to recover from a PLF.)
- d. Each PLF is critiqued immediately, and the significance of the five points of contact is emphasized.

#### 4-3. LATERAL DRIFT APPARATUS

A platoon is distributed among several apparatuses. Each apparatus requires a parachutist, a ropeman, and a safety man, who is positioned at the rear of the platform to catch the trolley when it is returned by the ropeman (Figure 4-2). On the command CLEAR THE PLATFORM, the parachutist pulls up slightly on the bar, leaves the platform, and assumes a modified landing attitude. On the command LAND, the parachutist releases the bar (near the ground) and executes the proper PLF.

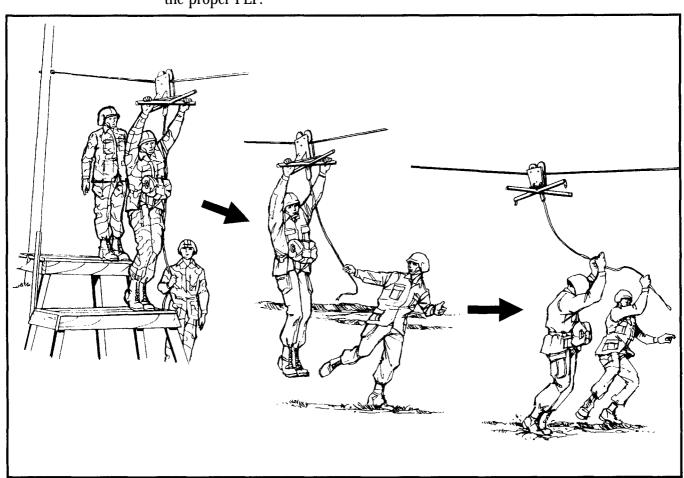


Figure 4-2. Lateral drift apparatus.

#### 4-4. SWING LANDING TRAINER

The swing landing trainer apparatus is suspended above a 12-foot-high platform from which students, wearing a parachute harness, descend to practice PLFs (Figure 4-3). The apparatus provides a downward motion and oscillation similar to that experienced during a parachute jump. The suspension is placed so that the student swings when stepping off the platform. Using a control line, the instructor controls the rate of descent. The two fundamental training objectives in this instruction are as follows: Students receive practical work in assuming the correct landing attitude (T-10 and MC1-1) and in executing front, side, and rear PLFs.

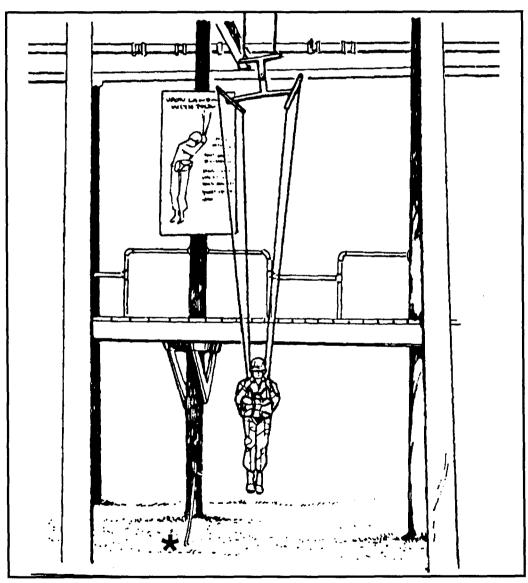


Figure 4-3. Swing landing trainer.

**4-5. PERSONNEL AND EQUIPMENT REQUIREMENTS**Personnel required to train on the SLT apparatus include one instructor for every two dismount points in use and four detail personnel for each unit (Figure 4-4). Enough harnesses to accommodate the students are also required.

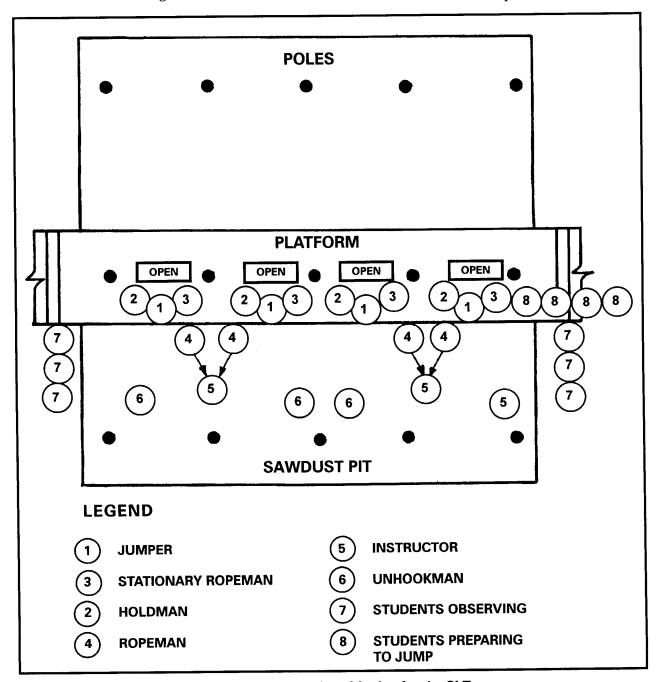


Figure 4-4. Personnel positioning for the SLT.

#### 4-6. TRAINING

The swing landing trainer provides practical exercise in the various PLFs and may be used to practice the last four of the five points of performance. Students must—

- Secure a harness and reserve parachute, and put them on.
- Move to and mount the stairs at an assigned point. One student covers each open point. If a point is not open, the students wait on the stairs. Students stand on alternate steps of the stairs while waiting.
- Jump from two even or odd points in a section. They do not change sections or switch sides of the apparatus unless directed to by an instructor.

Detail personnel hook up students, who await commands from instructors.

#### 4-7. PLATFORM PERSONNEL DUTIES

The following detail personnel are needed for training with the SLT.

- a. **Stationary Ropeman.** The stationary ropeman stands by the stationary rope and—
  - Pulls up the stationary rope with risers hooked to it.
  - Unhooks the risers from the rope.
  - Passes one set of risers to the holdman.
  - Hooks one set of risers to one of the jumper's D-rings and butterfly snaps.
  - Grasps the horizontal back strap of the parachutist to prevent him from clearing the platform before being told to so. The stationary ropeman grasps the platform handhold with his free hand.
  - Releases the parachutist on command.
- b. **Holdman**. The holdman on the platform stands beside the rail padding, allowing space for the parachutist between himself and the stationary ropeman. He—
  - Receives one set of risers from the stationary ropeman and removes any twists.
  - Hooks the risers to the jumper's D-rings and butterfly snaps.
  - Grasps the horizontal back strap of the parachutist to prevent the parachutist from clearing the platform before being told to do so. The holdman grasps the platform handhold with his free hand.
  - Releases the parachutist on command.
- c. **Unhookman**. The unhookman stands in the pit at parade rest near the outside pole at each point. The unhookman—
  - Commands the ropeman, TAKE UP THE SLACK, ROPEMAN.

- Unhooks the parachutist's risers after each PLF.
- Hooks the risers to the stationary rope and returns to his assigned position.
- d. **Ropeman.** The ropeman stands beneath the platform and—
- On the command TAKE UP THE SLACK, ROPEMAN, grasps the rope in both hands and moves toward the instructor while taking up the slack.
- Gives the rope to the instructor and sounds off, "Rope, Sergeant;" he then returns to his assigned position.

#### 4-8. INSTRUCTOR DUTIES

When ready to drop a student, the instructor takes the rope from the ropeman and tells the parachutist the direction of drift and type of parachute (T-10 or MC1-1) before commanding CLEAR THE PLATFORM. Then the following occurs:

- The platform detail personnel release the parachutist.
- The parachutist executes a half chin-upon the risers, clears the platform, and assumes the correct landing attitude.
- The instructor lowers the student to the ground.
- At the completion of the PLF, the parachutist simulates activating one canopy release assembly, makes a quick recovery, and reports to the instructor for a critique and grade.
- The parachutist sounds off "Clear" or "Not clear" at the completion of the critique and moves directly out of the pit.
- The detail personnel perform their duties in sequence to prepare another student for the exercise.

#### 4-9. SAFETY CONSIDERATIONS

The following precautions are taken to ensure the student's safety.

- The landing area must be constructed of at least 12 inches of sawdust or like material.
- The sawdust must be loosened by raking before each period of instruction.
- The ropes on the apparatus must be checked daily for wear.
- The spreader bars and risers must be checked for wear.
- The harnesses and canopy release assemblies must be checked for completeness and serviceability.
- The student must not be dropped from more than 3 feet.
- The student must not be dropped on the initial oscillation or when unprepared for the PLF.

- The student must be dropped at a point in oscillation that aids in executing the desired PLF.
- Any student with a prior head injury will have the letter H on his helmet to allow close instructor monitoring.

# Section II MOCK DOOR

The mock door is a replica of the cargo/troop compartment of a troop carrier aircraft. This apparatus includes openings about the size of the aircraft door and anchor line cables for each door (Figure 4-5). For training purposes, the instruction is divided into a basic phase and an advanced phase. The basic phase teaches basic jump techniques and familiarizes students with equipment, aircraft terms, and safety procedures. The advanced phase provides instruction in the sequence of jump commands and the mass exit technique.

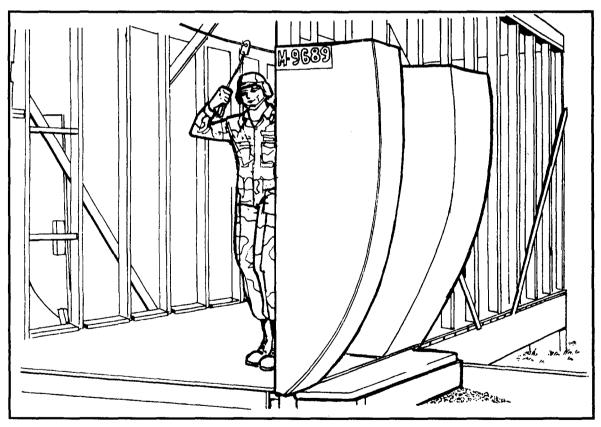


Figure 4-5. Mock door apparatus.

#### 4-10. BASIC PHASE

Students are taught the terms and nomenclature of military parachuting and the use of aircraft equipment. Teaching objectives include the shuffle position, the STAND BY position, the exit and body positions, and the 4000-count.

- a. **Personnel and Equipment Requirements.** One instructor and one assistant instructor are required for each mock door in use. One section of static line (about 4 feet long and not attached to the parachute assembly) is required per student. Loudspeakers will be needed if the class or facilities are large.
- b. **Training.** The initial instruction in the mock door apparatus includes a lecture and demonstration followed by practical exercises.
- (1) Each student is given the commands STANDBY and GO. The student is critiqued and corrected by the instructor on the movement to the door, his exit, his body position, and the 4000-count.
- (2) Repetition is the key to this training; however, its value is decreased if allowed to become boring. Correct and automatic reactions by each student is the goal.
- (3) The "Hit It" exercise is given as a test of mental alertness and for practical work in assuming the proper body position. On the command HIT IT, the student—
  - Snaps into the proper body position and at the same time commences the 4000-count.
  - Remains in the body position until commanded to RECOVER, or until he is told to CHECK CANOPY and GAIN CANOPY CONTROL. The student simulates checking the canopy. Then he is told to RECOVER or that there is a MALFUNCTION. In the latter case, the student returns to a modified body position and simulates activation of the reserve. The command RECOVER is given.
  - Receives instruction on the right and left jump doors of the mockup.
- c. **Terms.** The following terms are important in mock door training and are explained during the initial phase of instruction.
- (1) **Left and right door.** When the parachutist is facing the pilot's compartment the door on his right is the right door; the door to his left is the left door.
- (2) **Anchor line cable.** A cable is normally extended along the long axis of the cargo/troop compartment and secured at both ends. The cable is designed to accommodate the static line snap hook and to initiate parachute deployment.
- (3) **Stick of parachutists.** This is a group of parachutists exiting from the same door (or from one side of a ramp) during one pass over the DZ.
- (4) **Drop zone.** This is a designated area where personnel or equipment are delivered by means of parachute or free drop. The GUC designates the DZ location.
- (5) **Shuffle position.** This is a method of moving toward the jump door that may be used to avoid losing balance or tripping (Figure 4-6).

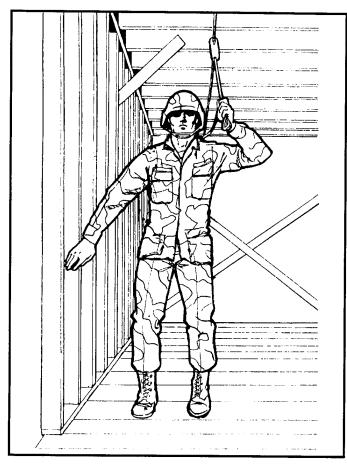


Figure 4-6. Shuffle position.



Figure 4-7. Static line bight.

- (a) The outboard arm and hand are extended down and out to maintain balance; the other hand grasps the static line. When jumping the left door, the parachutist has the static line over the left shoulder; when jumping the right door, he has the static line over the right shoulder.
- (b) Facing the rear of the aircraft, the parachutist keeps both feet directly beneath the body and staggered with the outboard foot forward; this is the shuffle foot. The inboard foot is the trail foot.
- (c) The parachutist moves by stepping forward 6 to 8 inches with his shuffle foot and then his trail foot. Both feet are staggered in the same heel-and-toe position.
- (6) **Bight.** The parachutist forms a bight of about 6 inches in the static line by making one fold and grasping the loop at eye level about 6 inches to the front (Figure 4-7). The remainder of the static line is routed over the shoulder. The free hand is used to steady the parachutist while moving toward the door.

- (7) *Jump commands.* The last two jump commands, STAND BY and GO, are used for each student when practicing exits.
- (a) On the command STAND BY, the parachutists shuffle toward the jump door.
  - When the first jumper is perpendicular to the jump door, he takes one more shuffle step and halts his movement about 2 feet from the center of the jump platform. He keeps his feet spread and legs slightly flexed so that his weight is equally distributed over both feet to maintain balance.
  - He makes eye-to-eye contact with the safety and hands the static line to the safety.
  - He executes a half-left or half-right to face the open jump door, ensures his arm is not entangled with the static line, holds his elbows firmly into his sides, and places the palms of his hands (fingers spread) on the ends of the reserve parachute with his right hand protecting the rip cord grip.
  - At the command STAND BY, the number 2 jumper will be positioned about even with the leading edge of the jump door, 2 feet from the skin of the aircraft and facing to the rear, in the shuffle position with his feet spread and legs slightly flexed so that the weight is equally distributed over both feet to maintain balance.
  - Follow-on jumpers close up behind the preceding jumper and keep the shuffle position with the feet spread and legs slightly flexed so that their weight is equally distributed over both feet to maintain balance.
- (b) At the command GO, the number 1 jumper walks out the jump door, stepping out and away from the jump platform; no vigorous up-and-out or hopping motion is used during the exit.
  - (c) The number 2 jumper (and all following jumpers) performs the following:
  - He shuffles toward the jump door, ensuring he is about 2 feet from the skin of the aircraft.
  - When about perpendicular to the jump door, he takes one more shuffle step, makes eye-to-eye contact with the safety, and hands the static line to the safety.
  - He ensures his arm is not entangled with the static line, and he holds his elbows firmly into his sides.
  - He places the palms of his hands (fingers spread) on the ends of the reserve parachute, with his right hand protecting the rip cord grip.
  - He executes a half-left or half-right to face the open jump door and positions himself about 2 feet from the jump platform.

- He walks out the jump door, stepping out and away from the jump platform without a vigorous up-and-out or hopping motion.
- (6) *Body position.* The student remains in the body position, is critiqued by the instructor, and is told to RECOVER and GO TO (a predesignated nearby location) AND OBSERVE THE OTHER STUDENTS EXIT.

#### 4-11. ADVANCED PHASE

The training provided during the advanced phase is presented in the same manner as in the basic phase except that the entire sequence of time warnings and jump commands is given, and mass exits are substituted for individual exits.

- a. **Personnel.** Extra instructors may be needed to ensure that all students in the mock door apparatus react properly to each of the jump commands.
- b. **Execution**. When the mass exit technique is taught, each stick receives the commands STAND BY and GO. Each succeeding student shuffles to the door and exits the aircraft. A 1-second interval must be maintained between students.

# Section III SUSPENDED HARNESS

The suspended parachute harness apparatus is a modified troop parachute harness suspended from a spreader bar assembly by four web risers (Figure 4-8). The spreader bars react to riser (T-10) or toggle (MC1-1) manipulation much the same as the canopy. The suspended harness simulates the third and fourth points of performance: canopy control and prepare to land.

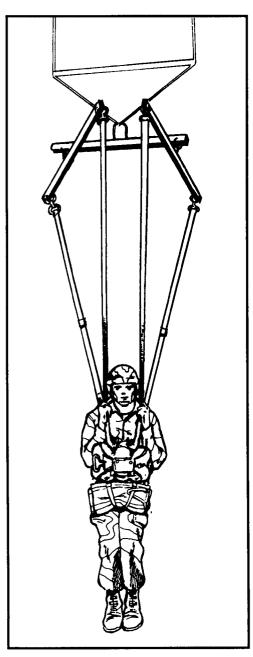


Figure 4-8. Suspended harness.

#### 4-12. OBJECTIVES

The suspended harness apparatus is designed to teach the student to execute the following maneuvers:

- T-10 slips (two-riser and one-riser).
- MC1-1 turning, holding, running, and crabbing.
- T-10/MC1-1 landing attitude.
- T-10/MC1-1 emergency landings (tree, water, and wire).
- React to twists, collisions, and entanglements.

### 4-13. PERSONNEL AND EQUIPMENT REQUIREMENTS

The following personnel and equipment are needed to conduct training on the suspended harness.

- a. One instructor is needed to give commands, and at least one assistant instructor per platform is needed to control and supervise student performance. One troop harness is required for every two students. A modified MC 1-1 riser assembly is used, which facilitates training on a simulated T- 10 or MC 1-1 parachute.
- b. A platoon is divided into teams of two students each. Number 1 is the parachutist, and number 2 is the coach.
- (1) The parachutist obtains a troop parachute harness and moves to a specific point at the suspended harness apparatus.
- (2) The coach mounts the platform and adjusts the risers so that the male fitting of the canopy release assembly is level with the parachutist's shoulders below. The coach dismounts the platform and helps the parachutist don the harness and attach it to the risers. The coach remounts the platform and takes up all the slack in the parachutist's risers.
  - (3) All parachutists face the instructor and await commands.

# 4-14. SEQUENCE OF COMMANDS

The instructor uses the following sequence of commands. (The let-up position is the starting position for all training on the suspended harness.)

- a. LET UP. On this command, each parachutist:
- Has his head erect and his eyes on the horizon.
- Grasps all four risers (T-10) with his hands and locks his elbows.
- Grasps the steering toggles (MC1-1) with his hands (palms outward) and applies moderate tension (enough to take out any slack in the control lines).
- · Has his back straight.
- Has his feet and knees together. (The parachutist is standing flat-footed on the ground.)

- b. **AT EASE IN THE HARNESS.** On this command, each parachutist comes to a modified position of parade rest in the harness. From the let-up position, the instructor directs the parachutist to practice appropriate parachute maneuvers.
- c. **CHANGEOVER.** Number 2 switches places with number 1 and becomes the parachutist; number 1 becomes the coach.

Instructors may give additional commands and instruction to ensure proper fitting, wearing, or removal of equipment and proper student performance on the apparatus.

# Section IV THE 34-FOOT TOWER

The 34-foot tower supports a replica of a section of a troop carrier aircraft (Figure 4-9). A jump door is on each side of the replica. Four steel cables are suspended parallel to the ground and slightly above each door. A trolley, which supports tow trolley risers, is attached to each cable. Each trolley riser has a ring attached to its free end. This ring is connected to a modified harness worn by students during training on the tower. The tower is a primary training apparatus to help teach basic jump techniques and points of performance. For ease in training, the instruction is divided into two phases: The basic training phase continues instruction presented on the mock door apparatus. The advanced training phase continues instruction on the mass exit technique, simulates parachute malfunctions, and familiarizes the students with jumping combat equipment.

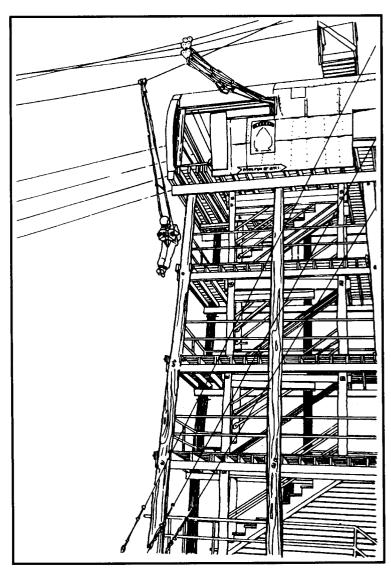


Figure 4-9. The 34-foot tower.

#### 4-15. BASIC TRAINING OBJECTIVES

Students practice the exit technique, the proper body position, and the 4000-count. The tower also gives each student experience to overcome his fear of height, and it simulates the opening shock.

- a. **Training.** The initial period of instruction on the tower apparatus includes an orientation and demonstration of the apparatus, duties of instructor personnel (graders, JMs, harness checker), and duties of all detail personnel. Each student is given the commands STANDBY and GO by the JM in the tower. The student's exit, body position, 4000-count, and simulated canopy checks are critiqued and graded by the grader on the ground.
- b. **Safety.** To prevent safety problems, all personnel must be safety conscious. The following measures are taken to prevent unsafe conditions:
  - (1) Tower JMs must wear safety belts.
- (2) Students must have equipment adjusted properly and must be checked to ensure a snug fit, the absence of frays or tears, the serviceability of snaps, and a properly fitted helmet.
- (3) Frequent inspections must be made of the tower to include trolley risers, cables, trolleys, and the proper adjustment of each.
- (4) Students must lift their legs as they approach the mound at the end of the cable run to prevent injury.

## 4-16. PERSONNEL AND EQUIPMENT REQUIREMENTS

The following personnel manage, operate, and carry out 34-foot tower training.

- a. **Instructors.** A minimum of seven instructors are required to operate this apparatus. Their positions are indicated in Figure 4-10.
- (1) Two mock door instructors correct students on problem areas and give them additional practice.
- (2) Two JMs hook up students in the tower and issue the last two jump commands.
- (3) Two graders on the ground critique and grade the students' performance on the apparatus.
  - (4) One harness checker inspects all harnesses before students exit the tower.
  - b. Detail Personnel. A minimum of 24 detail personnel are required.
- (1) **Moundmen.** Two students are assigned to each cable on the tower (16 total). They are positioned on the mound, facing the tower, on each side of the cable. They are responsible for unhooking the incoming student from the trolley risers and attaching a rope to the trolley for its return to the tower.
- (2) *Ropemen.* One student at each point (eight total) returns the trolley risers to the tower after the incoming student is unhooked. (The rope is divided at one end for attachment to two sets of trolley risers.) The ropeman returns the trolley

to a point about 20 feet from the tower immediately after the incoming students are unhooked, and the rope is attached to both sets of risers. The ropeman awaits the JM's command to return the trolley to the tower. The JM (in the tower) unhooks the rope from the trolleys and drops it to the ropeman, who coils it around his hand and upper arm, and runs back to the base of the mound. The ropemen for each two points alternate in returning the trolleys to the tower.

c. **Equipment.** The equipment includes one troop parachute harness assembly (with four risers) and a training reserve parachute for each student.

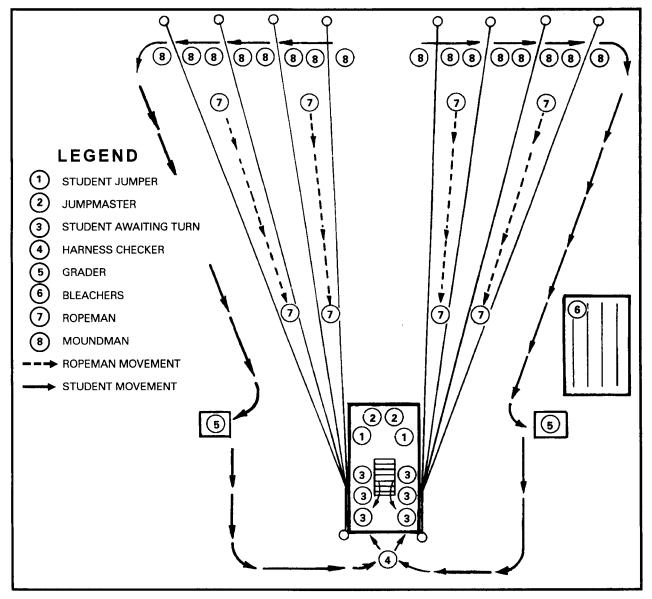


Figure 4-10. Tower personnel positions.

#### 4-17. ADVANCED TRAINING OBJECTIVES

These objectives have the student practice exits using the mass exit technique with and without combat equipment. If exiting with combat equipment, he must also practice lowering the equipment. The student must practice simulating activation of the reserve parachute. He must do this instantly when told a malfunction has occurred.

- a. **Training.** The initial period of instruction during this phase includes a lecture and demonstration on the mass exit technique.
  - b. **Common Student Errors.** The following errors are often made by students.
  - Failing to maintain a 1-second interval between jumpers.
  - Using improper body position (caused by rushing).
  - Improper exit.
  - Falling out of the door.
  - · Failing to count.
- c. **Safety**. Safety considerations for the advanced phase are the same as in the basic phase.
  - d. **Personnel**. Personnel remain the same as for the basic phase.
- e. **Equipment.** Combat equipment is required for the students. (Actual packed combat equipment containers, or combat equipment containers which approximate packed loads, can be used to train students in the techniques of exiting with this type of load.)

# Section V METHODS OF RECOVERY

During methods of recovery training, the jumper learns the steps he must take to consolidate with his unit as a member of the fighting force. Once the jumper lands on the drop zone, he must quickly recover, correctly stow his air items ("pop and go"), and quickly proceed to the unit assembly area.

#### 4-18. TRAINING OBJECTIVES

This phase of training teaches the student to properly activate the canopy release assemblies on the parachute harnesses. He learns to perform the buddy-assist method of recovery and to react properly when using the various recovery training apparatuses. He is also taught how to recover the parachute and individual equipment from the DZ and to rapidly clear the DZ.

### 4-19. PERSONNEL AND EQUIPMENT REQUIREMENTS

One instructor, one assistant per two dismount points, and four detail personnel per point are required. Sufficient harnesses and combat gear properly rigged to accommodate each student are also needed.

#### 4-20. TRAINING APPARATUS

The hand-towed dragbar training apparatus is used in teaching students how to activate the canopy release assemblies. The hand-towed dragbar is made of two pieces of webbing attached to a metal bar with a loop on each end. Attached to the bar are two risers with the male fitting of the canopy release assemblies attached to the opposite ends (Figure 4-11). Students train in three-man teams as follows:

- Number 1 is the parachutist and wears the drag harness.
- Number 2 and number 3 pull the dragbar.
- Number 1 puts on the harness and passes the risers to numbers 2 and 3. Numbers 2 and 3 then attach the risers to the canopy release assemblies, and number 1 lies on his back.
- On the command PREPARE TO DRAG, number 1 places his chin on his chest, reaches high on both sets of risers, and raises his feet 6 inches off the ground.
- On the command DRAG, numbers 2 and 3 drag number 1 across the ground.
- On the command RELEASE, number 1 reaches down and activates the canopy release assemblies using the prescribed method.

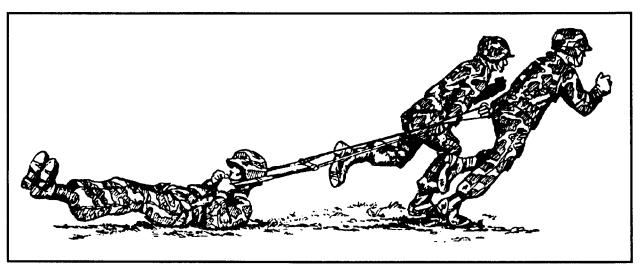


Figure 4-11. Hand-towed dragbar.

- The three students immediately return to the starting line.
- Numbers 2 and 3 hook up the parachutist to the dragbar again.
- At the command CHANGE OVER, number 2 becomes the parachutist (number 1), number 3 becomes number 2, and number 1 becomes number 3. Students rotate numbered positions until each student becomes proficient in the procedures.

#### 4-21. CANOPY RELEASE ASSEMBLIES

Before the canopy release assemblies can be activated, the safety clip must be pulled down to expose the cable loop. There are two ways to activate the canopy release assembly. One is the hand-to-shoulder method and the other is the hand-assist method.

#### 4-22. CANOPY RELEASE ASSEMBLY ACTIVATION

The instructor tells the student to pull the safety clip out and away from the body. The cable loop release does not require a great deal of strength to activate, and, if the parachutist is injured, the cable loop release can be easily activated by the thumb or fingers of either hand (Figure 4-12).

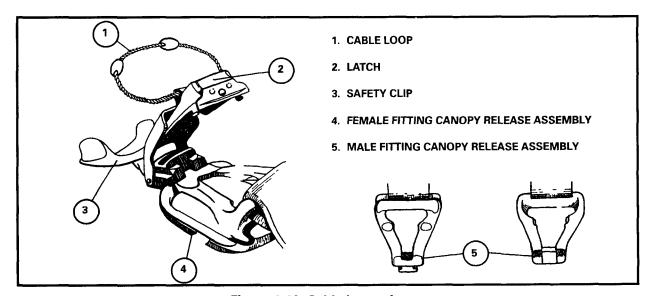


Figure 4-12. Cable loop release.

#### 4-23. JUMP REFRESHER TRAINING

Before making a parachute jump, students make several refresher jumps from platforms. They are required to make a satisfactory PLF in each of the principal directions before they leave the platform area. (A detailed description of refresher training is in Appendix A.)